

ISLAND BRITAIN: A QUATERNARY PERSPECTIVE
 edited by R. C. Preece, The Geological Society, London,
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 members of the Geological Society). ISBN 1-897799-32-2.

E. S. Deevey (1949), the doyen of Quaternary (or Pleistocene!) biogeography, said that Pleistocene biogeography was bipolar: 'At one pole are grouped ecology, systematic botany and zoology, the study of evolution and related biologic disciplines. At the other pole are grouped the Earth sciences, all of which are concerned in understanding the geography of the Pleistocene'. He would have very much appreciated this volume, particularly since he considered that the question of the immigration of the fauna and flora of the British Isles was one of the most popular topics of biogeography because of its manageability. These collected papers derive from a meeting held in 1993: a short delay between meeting and publication on which the editor (and authors) must be congratulated. They are all authoritative reviews, containing fact and speculation, specifics and generalities, by authors who have been active and productive in research, and they consider the whole Quaternary. The introduction by the editor summarizes each contribution. On the Earth sciences side, there are eight papers concerned with marine geological matters which could affect the insularity of the British Isles. These include the change from Pliocene to Quaternary conditions of sedimentation, the origin of the Dover strait, the history of the southern North Sea and associated rivers, inner-shelf conditions and palaeovalleys, sea level changes and raised beaches, palaeotidal modelling, and factors affecting the presence of land bridges. The seven biological papers naturally involve consideration of the fauna and flora of the British Isles and the neighbouring continent, since the degree of dissimilarity is a measure of geographical isolation. The zoological papers detail the mollusc and

vertebrate fauna and discuss how they indicate insularity from the continent at particular times. The contributions on flora history discuss first the tree and shrub flora of the British Isles, with the suggestion that insularity played little part in the history of this flora, and second the Irish flora, with a detailed discussion on the possible origins of the Lusitanian element and other taxa in the Irish flora. A general feeling emerges, based on all the data, that Britain was isolated in the Middle Tiglian, Eemian and Holocene, but at other times there was connection with the continent.

The papers as a whole reflect the vast developments which have taken place in Quaternary research since Deevey's survey. Knowledge of the geology of the continental shelf, of processes concerned with isostasy and eustasy, of the marine isotope record and its implications for high sea levels, of Quaternary stratigraphy and of the fossil record, have all contributed to biogeographical understanding. But reading the papers emphasizes two points: much better understanding of Middle Pleistocene stratigraphy and chronology is required (see discussion of the problems in several of the papers); and more palaeontology is needed, which perhaps has come second, in terms of data accumulation, to other subjects concerned here.

The volume is well-produced and well-illustrated and, with its wealth of data and discussion, is a must for all concerned with Quaternary biogeography.

REFERENCE

Deevey, E. S. 1949. 'Biogeography of the Pleistocene', *Bulletin of the Geological Society of America*, **60**, 1315–1416.

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